CLAIMS:

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- 1. A projection system for image display with at least one lamp (1), with at least one sensor (5) for detecting changes in the luminous flux delivered by said at least one lamp (1) and for compensating these changes through a suitable control of the image display and/or the lamp, and with a light integrator (3) into which at least a portion of the light provided by the lamp (1) is coupled in, wherein the sensor (5) is optically coupled to the light integrator (3) such that it detects the luminous intensity present in the light integrator (3).
- 2. A projection system as claimed in claim 1, wherein the sensor (5) is arranged at a sheath (33) of the light integrator (3), said sheath (33) having a window which is at least partly transmittive to the light present in the light integrator (3), through which window the light is incident on the sensor (5).
- 3. A projection system as claimed in claim 1, wherein the at least one sensor (5) is arranged inside the light integrator (3).
- 4. A projection system as claimed in claim 1, wherein the at least one sensor (5) is optically coupled to the light integrator (3) by means of an optical waveguide.
- 5. A projection system as claimed in claim 1, wherein the at least one sensor (5)
 has a sensor surface (51) against or inside the light integrator (3), which surface extends substantially parallel to the exit surface (32) of the light integrator (3).
 - 6. A projection system as claimed in claim 1, wherein the at least one sensor (5) has a sensor surface (51) against or inside the light integrator (3), which surface extends substantially perpendicularly to the exit surface (32) of the light integrator (3).
 - 7. A projection system as claimed in claim 1, wherein the control of the image representation takes place in that the output signal of the at least one sensor (5) is applied to a lamp driver (6).

WO 2004/112443 PCT/IB2004/050832

- 8. A projection system as claimed in claim 1, wherein the output signal of the at least one sensor (5) is filtered by means of a filter for the purpose of compensating changes in the luminous flux generated by the lamp (1) which occur with a given frequency.
- 9. A projection system as claimed in claim 1 for the representation of color images through the time-sequential generation of primary colors on a display, comprising a light integrator (3) to which the at least one sensor (5) is optically coupled.

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